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Listing of Claims:

- 1 1. (currently amended) A method of interfacing with network management information on a  
2 network device, comprising:  
3 receiving a non-object oriented management information database (MIB) at a  
4 compiler of a network device, the non-object oriented MIB including information related  
5 to one or more aspects of the network device;  
6 extracting a subset of information from the non-object oriented MIB describing at  
7 least one aspect of the network device; and  
8 producing an object-oriented interface, for use by an object-oriented application to  
9 access the subset of information in the non-object oriented MIB, by generating a set of  
10 object-oriented classes and object-oriented methods corresponding to the subset of  
11 information in the non-object oriented MIB.
- 1 2. (Previously Presented) The method of claim 1, wherein information in the non-object  
2 oriented MIB corresponds to a set of network parameters organized in a hierarchy and  
3 used to describe aspects of the network device.
- 1 3. (Previously Presented) The method of claim 1, wherein:  
2 extracting information from the non-object oriented MIB further includes lexically  
3 recognizing a set of tokens corresponding to a set of network parameters that describes  
4 aspects of the network device and parsing the tokens according to a hierarchical  
5 relationship between the set of parameters; and  
6 generating a set of object-oriented classes and object-oriented methods includes  
7 generating a set of object-oriented classes and object-oriented methods corresponding to  
8 the lexically recognized and parsed tokens.
- 1 4. (Previously Presented) The method of claim 1, wherein a relationship among the object-  
2 oriented classes is a hierarchy that corresponds to the non-object oriented MIB.

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- 1 5. (Original) The method of claim 1, wherein the methods generated include methods  
2 capable of accessing and manipulating objects instantiated from at least one of the object-  
3 oriented classes.
- 1 6. (Previously Presented) The method of claim 5, wherein the methods include one or more  
2 of the operations used to operate on the non-object oriented MIB.
- 1 7. (Previously Presented) The method of claim 6, wherein the operations used to operate on  
2 the non-object oriented MIB are selected from a group of operations including get, set,  
3 and test of SNMP (simple network management protocol) variables.
- 1 8. (currently amended) A method of interfacing with network management information on a  
2 network device, comprising:  
3 providing a non-object oriented management information database (MIB)  
4 including information related to one or more aspects of a network device; and  
5 using a set of object-oriented classes and object-oriented methods ~~that~~  
6 ~~corresponds to~~ access the non-object oriented MIB and the information related to one or  
7 more aspects of the network device.
- 1 9. (Previously Presented) The method of claim 8, wherein information in the non-object  
2 oriented MIB corresponds to a set of network parameters organized in a hierarchy and  
3 capable of describing aspects of the network device.
- 1 10. (Previously Presented) The method of claim 8, wherein the relationship among the  
2 object-oriented classes is a hierarchy that corresponds to the non-object oriented MIB.
- 1 11. (Original) The method of claim 8, wherein the object-oriented methods are capable of  
2 accessing and manipulating objects instantiated from at least one of the object-oriented  
3 classes.

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- 1 12. (Previously Presented) The method of claim 11, wherein the object-oriented methods  
2 correspond to one or more of the operations used to operate on the non-object oriented  
3 MIB.
- 1 13. (Previously Presented) The method of claim 12, wherein the one or more operations used  
2 to operate on the non-object oriented MIB are selected from a group of operations  
3 including get, set, and test of SNMP (simple network management protocol) variables.
- 1 14. (currently amended) An apparatus to interface with network management information on  
2 a network device, comprising:  
3 a receiver module configured to receive a non-object oriented management  
4 information database (MIB) including information related to one or more aspects of the  
5 network device;  
6 an extraction module configured to extract a subset of information from the non-  
7 object oriented MIB describing at least one aspect of the network device; and  
8 a generation module configured to produce an object-oriented interface, for use by  
9 an object-oriented application to access the subset of information in the non-object  
10 oriented MIB. by generating ~~generate~~ a set of object-oriented classes and object-oriented  
11 methods corresponding to the subset of information in the non-object oriented MIB.
- 1 15. (Previously Presented) The apparatus of claim 14, wherein information in the non-object  
2 oriented MIB corresponds to a set of network parameters organized in a hierarchy and  
3 used to describe the network device.
- 1 16. (Previously Presented) The apparatus of claim 14, wherein:  
2 the extraction module extracts information from the non-object oriented MIB by  
3 lexically recognizing a set of tokens corresponding to a set of network parameters  
4 describing the device and parsing the tokens according to a hierarchical relationship  
5 between the set of parameters; and  
6 the generation module generates a set of object-oriented classes and object-  
7 oriented methods according to the lexically recognized and parsed tokens.

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- 1 17. (Previously Presented) The apparatus of claim 14, wherein the relationship among the  
2 object-oriented classes is a hierarchy that corresponds to the non-object oriented MIB.
- 1 18. (Original) The apparatus of claim 14, wherein the object-oriented methods generated  
2 include object-oriented methods capable of accessing and manipulating objects  
3 instantiated from at least one of the object-oriented classes.
- 1 19. (Previously Presented) The apparatus of claim 18, wherein the object-oriented methods  
2 include one or more of the operations used to operate on the non-object oriented MIB.
- 1 20. (Previously Presented) The apparatus of claim 19, wherein the operations used to operate  
2 on the non-object oriented MIB are selected from a group of operations including get, set,  
3 and test of SNMP (simple network management protocol) variables.
- 1 21. (currently amended) An apparatus for interfacing with network management information  
2 on a network device, comprising:  
3 a first storage area configured to store a non-object oriented management  
4 information base (MIB) including information related to one or more aspects of a network  
5 device; and  
6 a second storage area configured to store a set of object-oriented classes and  
7 object-oriented methods that ~~corresponds to~~ is used to access the non-object oriented MIB  
8 and the information related to one or more aspects of the network device.
- 1 22. (currently amended) An apparatus comprising a computer-readable storage medium  
2 tangibly embodying a program instructions for creating an interface to obtain network  
3 management information, the program instructions including instructions operable to  
4 cause a processor to:  
5 receive a non-object oriented management information database (MIB) including  
6 information related to one or more aspects of a network device;  
7 extract a subset of information from the non-object oriented MIB describing at  
8 least one aspect of the network device; and

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9                   produce an object-oriented interface, for use by an object-oriented application to  
10                   access the subset of information in the non-object oriented MIB, by generating ~~generate~~ a  
11                   set of object-oriented classes and object-oriented methods corresponding to the subset of  
12                   information in the non-object oriented MIB.

1    23.   (currently amended) An apparatus comprising a computer-readable storage medium  
2           tangibly embodying program instructions for creating an interface to obtain network  
3           management information, the program instructions including instructions operable to  
4           cause a processor to:  
5                   provide a non-object oriented management information base (MIB) including  
6                   information related to one or more aspects of a network device; and  
7                   use a set of object-oriented classes and object-oriented methods ~~that corresponds~~  
8                   to access the non-object oriented MIB and the information related to one or more aspects  
9                   of the network device.

1    24.   (currently amended) An apparatus for interfacing with network management information  
2           on a network device, comprising:  
3                   means for receiving a non-object oriented management information database  
4                   (MIB) including information related to one or more aspects of a network device;  
5                   means for extracting a subset of information from the non-object oriented MIB  
6                   describing at least one aspect of the network device; and  
7                   means for producing an object-oriented interface, for use by an object-oriented  
8                   application to access the subset of information in the non-object oriented MIB, by  
9                   generating a set of object-oriented classes and object-oriented methods corresponding to  
10                  the subset of information in the non-object oriented MIB.

1    25.   (Cancelled)

1    26.   (Previously Presented) A method of interfacing with network management information  
2           on a network device, comprising:  
3                   adding a new network device to a network of one or more network devices, the  
4                   new network device and each of the one or more network devices having one or more

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5 network management parameters stored in a non-object oriented management information  
6 database (MIB);

7 distributing an object-oriented network management application to the new  
8 network device from the one or more network devices, the object-oriented network  
9 management application operable to generate an object-oriented request for one or more  
10 network parameters stored in a non-object oriented MIB;

11 determining that the network management application is requesting one or more  
12 network parameters stored locally in the non-object oriented MIB of the new network  
13 device;

14 creating a native variable interface, the native variable interface being an object-  
15 oriented application interface that provides direct access to the one or more network  
16 parameters stored locally using object-oriented classes and methods; and

17 accessing the one or more network parameters stored locally through the native  
18 variable interface.

1 27. (Previously Presented) The method of claim 26, wherein the step of creating a native  
2 variable interface includes initially accessing indirectly one or more network parameters  
3 stored locally that describe features of the new network device using a loopback address  
4 of the new network device, including sending an simple network management protocol  
5 (SNMP) protocol data unit (PDU) to the loopback address of the new network device, the  
6 SNMP PDU to retrieve the one or more network parameters stored locally that describe  
7 features of the new network device, and using the features of the new network device to  
8 customize the native variable interface.

1 28. (Previously Presented) The method of claim 27, wherein the step of sending an SNMP  
2 PDU to the new type of network device includes using an SNMP stack associated with  
3 the new network device.

1 29. (Previously Presented) The method of claim 27, wherein the step of accessing indirectly  
2 one or more network parameters stored locally that describe features of the new network  
3 device includes generating an object-oriented method call for the one or more network

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- 4 parameters stored locally that describe features of the new network device, and converting  
5 the object-oriented method call into the SNMP PDU.
- 1 30. (Previously Presented) The method of claim 29, wherein the SNMP PDU includes one or  
2 more SNMP operations selected from the group of get, set and test.